

## ABSTRACT OF THE DISCLOSURE

A driving mechanism includes a motor and a wave gear device. Three sets of torque sensors are attached at intervals of  $120^\circ$  on a diaphragm of a flexible external gear of the wave gear device. In the rotational angle detecting part of the signal processing circuit, signal components that are included in the outputs of the torque sensors, that vary in the form of two cycles of a sine wave per rotation of the wave generator and are synchronous with a rotational angle of the wave generator are extracted and a coordinate transformation is carried out for the obtained three-phase sinusoidal signals to calculate two-phase sinusoidal signals that are  $90^\circ$  out of phase, with the rotational angle of the wave generator being calculated based on these signals. Without providing a rotational angle detector separately, it is possible to detect the rotational angle of the wave generator using the outputs of the torque sensors.